

CLAIMS:

1. A method of constructing a glass panel which comprises two confronting edge sealed glass sheets, the method comprises the steps of:

5 - providing a solder glass band around a margin of one surface of each glass sheet;

- forming, at a first temperature, a hermetic bond between the solder glass band and said surface of each glass sheet;

10 - positioning the glass sheets in spaced-apart confronting relationship;

- forming, at a second temperature which is lower than the first temperature, a hermetic seal between the two solder glass bands whilst maintaining the spaced

15 apart relationship between the glass sheets, in a manner that substantially avoids annealing of either glass sheet.

2. A method as claimed in claim 1, wherein the
20 step of forming the hermetic seal between the solder glass bands comprises fusing together the two solder glass bands to form a hermetic bond directly between those bands.

25 3. A method as claimed in claim 1, wherein the step of forming the hermetic seal between the two solder glass bands comprises interposing solder glass between the two solder glass bands and fusing the solder glass with the two solder glass bands.

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4. A method as claimed in claim 1, wherein the temperature and time for forming the hermetic bond between the solder glass band and at least one of the glass sheets is selected such that tempering of the glass
35 sheet will be effected.

5. A method as claimed in claim 1, wherein support pillars are used to maintain the glass sheets in the spaced apart relationship.

5 6. A method as claimed in claim 1, wherein the method further comprises a step of evacuating hermetically sealed space between the two glass sheets.

7. A method as claimed in claim 1, wherein the
step of providing the marginal solder glass bands
10 comprises depositing a liquid paste comprising solder
glass powder onto the surfaces.

8. A method as claimed in claim 1, wherein the solder glass is deposited by a screen printing process.

9. A method as claimed in claim 1, wherein the
15 solder glass is deposited as a pre-formed film or tape.

10. A method as claimed in claim 1, wherein,
during the forming of the hermetic seal between the two
solder glass bands, a spacing between the glass sheets
20 changes compared to when the glass sheets are positioned
in the spaced-apart confronting relationship.

11. A method as claimed in claim 1, wherein the glass sheets are flat.

12. A method as claimed in claim 1, wherein the
25 glass sheets are curved.

13. A glass panel which comprises two
confronting edge sealed glass sheets, in which an edge
sealing is being effected by the method defined in
claim 1.